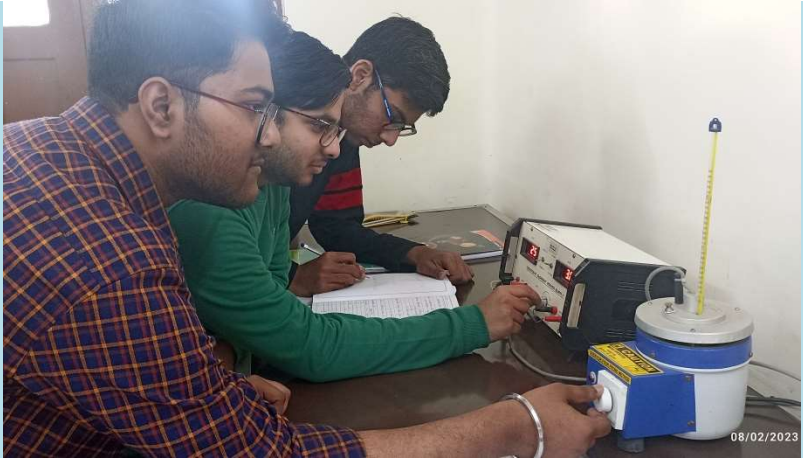



## Engineering Physics Laboratory (NPH101): UG Laboratory

**Faculty In-charge: Dr. Divya Somvanshi**

S. No.	Experiment Name	Photograph
1	To determine the energy of band gap of an N-type Germanium (Ge) semiconductor using four-probe method.	 A photograph showing three students in a laboratory setting. They are gathered around a table, focused on a piece of equipment. One student is adjusting a dial on a device, while the others look on. The equipment includes a power supply and a specialized measurement unit. A date stamp '08/02/2023' is visible in the bottom right corner of the photo.
2	Verification of Stefan's fourth power law for black body radiation, determination of the exponent of the temperature.	 A photograph showing four students working together at a table. They are looking at a piece of equipment, possibly a black body radiation source, and are connected by wires. One student is adjusting a component. The students are dressed in dark clothing. A date stamp '07/02/20' is visible in the bottom right corner of the photo.

3

Study of thermoelectricity:  
Determination of thermo-power of  
Copper-constantan thermo-  
couple.



4

To study the variation of magnetic  
field with distance along the axis of  
current carrying coil and then to  
estimate the radius of the coil.



5

Study of Carrey Foster's bridge: determination of resistance per unit length of the bridge wire and of a given unknown resistance.



6

Determination of specific charge (charge to mass ratio;  $e/m$ ) for electron.



7

Study of tangent galvanometer: determination of reduction factor and horizontal component of Earth's magnetic field.



8

Determination of the wavelength of sodium light using Newton Rings' method.



9

To determine the concentration of sugar solution using half shade Polarimeter.



10

Determination of wavelength of spectral lines of mercury (for violet, green, yellow-1 and yellow-2) using plane transmission grating.



11

Determination of charge sensitivity and ballistic constant of a ballistic galvanometer.



12

To determine the wavelength of spectral lines of hydrogen & hence to determine the value of Rydberg Constant.



13

Draw the V-I characteristic of Light Emitting Diode (LED) and determine the value of Planck's constant.

